Homework #49   **Answers**
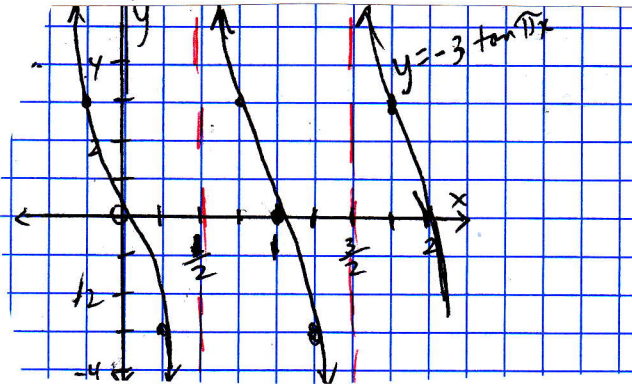
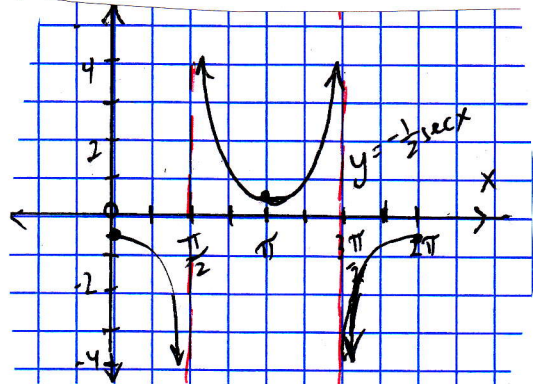**From Houghton-Mifflin**   **3rd Edition**

p341:

12) $y = -3 \tan \pi x$
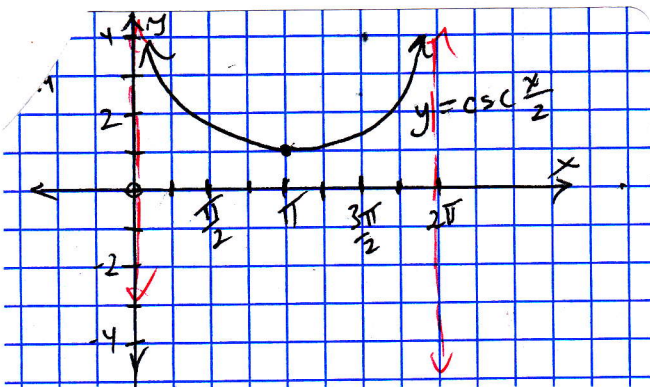   amplitude = 3 (starts down),
   period = $\pi/\pi = 1$
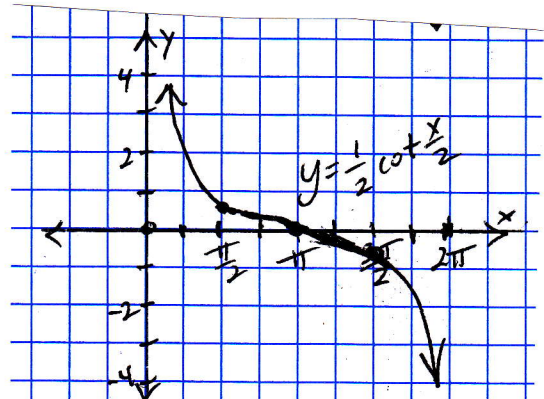

13) $y = -\frac{1}{2} \sec x$
   amplitude = $\frac{1}{2}$ (starts down),
   period = 2π

19) $y = \csc (x/2)$
   amplitude = 1,
   period = $(2\pi)/(\frac{1}{2}) = 4\pi$

21) $y = (\frac{1}{2}) \cot (x/2)$
   amplitude = $\frac{1}{2}$,
   period = $(2\pi)/(\frac{1}{2}) = 4\pi$

p330:

21) $f(x) = \sin x$, $g(x) = 4 + \sin x$
   $g(x)$ is $f(x)$ shifted 4 units up

23) $f(x) = \cos x$, $g(x) = 2 \cos x$
   $g(x)$ is $f(x)$ with an amplitude (or stretch) by 2